Clinical trial results:
Glucocorticoid-induced inhibition of IGF-I activity: exploration of underlying mechanisms.

Summary

EudraCT number	2012-003504-12
Trial protocol	DK
Global end of trial date	20 June 2014

Results information

Result version number	v1 (current)
This version publication date	11 January 2022
First version publication date	11 January 2022
Summary attachment (see zip file)	Results (EudraCT IGF bioactivity result.docx)

Trial information

Trial identification

Sponsor protocol code	GK_nilani_2012

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01762540
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Aarhus University Hospital
Sponsor organisation address	Nørrebrogade 44, Aarhus, Denmark, 8000
Public contact	Medical Research Laboratory, Clinical Institute of Medicine, Aarhus University Hospital, 0045 78461615,
Scientific contact	Medical Research Laboratory, Clinical Institute of Medicine, Aarhus University Hospital, 0045 78461615,

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	01 July 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	20 June 2014
Global end of trial reached?	Yes
Global end of trial date	20 June 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main purpose of the tríal is to advance our knowledge on the possible mechanism underlying the catabolic effects of long-term treatment with glucocorticoid. It aimed to elucidate the catabolic impact of five days of high-dose prednisolone treatment on the GH/IGF-system in healthy young men.

Protection of trial subjects:

All participants gave written, informed consent in accordance with the Declaration of Helsinki II. The study was conducted after approval from The Regional Scientific Ethical Committee and Danish Health and Medicine Authority. The study was monitored by the local GCP (Good Clinical Practice) unit to ensure international ethical and scientific quality standards.

Background therapy:

The study was designed as a randomized, double-blinded, placebo-controlled crossover trial with 5 days of oral prednisolon treatment (37.5 mg once daily in the morning) and 5 days of placebo treatment (one daily in the morning). Each study session was separated by a wash-out period of minimum 4 weeks.

The prednisolone dose (37,5mg/d) results in supraphysiological glucocorticoid effects, but the dose is clinically relevant and normally well tolerated during short-term treatment.

Evidence for comparator: -

Actual start date of recruitment	17 December 2012
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Denmark: 19
Worldwide total number of subjects	19
EEA total number of subjects	19

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0

Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	19
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Subjects were recruited via www.forsøgsperson.dk - a danish webpage for researchers to present clinical trials og recruit study participants. Only projects approved by the Danish Scientific Ethical Comittee can be published on the webpage.

Pre-assignment

Screening details:

Screeningsproces: routine biochemical testing, a medical interview, and a physical examination.
Inclusion criteria: healthy men, age 20-30, BMI 19-26, written consent.
Exclusion criteria: medical og mental diagnosis, allergi for trial drug, daily medicin intake, actual or prior (<1y) participation in trials using
Washout period: minimum 4 weeks

Period 1

Period 1 title	Overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo

Arm description: -

Arm type	randomization
Investigational medicinal product name	Calcium Supplement
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard + tablet
Routes of administration	Oral use

Dosage and administration details:

1 tablet daily for 5 days

Arm title	Prednisolone

Arm description: -

Arm type	Active comparator
Investigational medicinal product name	Prednisolone DAK
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard + tablet
Routes of administration	Oral use

Dosage and administration details:

1 tablet of 37.5mg daily for 5 days

Number of subjects in period 1	Placebo	Prednisolone
Started	9	10
Completed	9	10

Baseline characteristics

Reporting groups

Reporting group title	Overall trial

Reporting group description: -

Reporting group values	Overall trial	Total	
Number of subjects	19	19	
Age categorical Units: Subjects			
In utero		0	
Preterm newborn infants (gestational age < 37 wks)		0	
Newborns (0-27 days)		0	
Infants and toddlers (28 days-23 months)		0	
Children (2-11 years)		0	
Adolescents (12-17 years)		0	
Adults (18-64 years)		0	
From 65-84 years		0	
85 years and over		0	
Age continuous Units: years			
median	25		
inter-quartile range (Q1-Q3)	23 to 26	-	
Gender categorical Units: Subjects			
Male	19	19	
BMI Units: kg/m2			
median	24		
inter-quartile range (Q1-Q3)	23 to 25	-	
Fasting plasma glucose Units: mmol/L			
median	5.2		
inter-quartile range (Q1-Q3)	4.9 to 5.6	-	
HbA1c Units: percent			
median	5.3		
inter-quartile range (Q1-Q3)	5.2 to 5.8	-	
Systolic BP Units: mmHg			
median	125		
inter-quartile range (Q1-Q3)	119 to 133	-	
Diastolic BP Units: mmHg			
median	72		
inter-quartile range (Q1-Q3)	66 to 83	-	

End points

End points reporting groups

Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Prednisolone
Reporting group description: -	

Primary: Tissue specific IGF bioactivity

End point title	Tissue specific IGF bioactivity
End point description:	
Comparison of compartments after 5 days of treatment with prednisolone vs. placebo: The ratio between analyte concentrations in SBF vs serum	
End point type	Primary
End point timeframe:	
Day 5 of placebo and prednisolone treatment.	

End point values	Placebo	Prednisolone		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	9	10		
Units: ratio	9	10		

Statistical analyses

Statistical analysis title	Paired difference estimates
Comparison groups	Placebo v Prednisolone
Number of subjects included in analysis	19
Analysis specification	Pre-specified
Analysis type	other
P-value	< 0.05
Method	Wilcoxon (Mann-Whitney)

Adverse events

Adverse events information

Timeframe for reporting adverse events:

All subjects were followed for 1 week after each session to record any adverse events. In the event of any adverse events during trial, participants were closely followed until remission of symptoms.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	1

Reporting groups

Reporting group title	Trial participants

Reporting group description: -

Serious adverse events	Trial participants		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 19 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Trial participants		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 19 (36.84%)		
Gastrointestinal disorders			
Appetite disorder			
subjects affected / exposed	3 / 19 (15.79%)		
occurrences (all)	3		
Psychiatric disorders			
Sleep disorder			
subjects affected / exposed	2 / 19 (10.53%)		
occurrences (all)	2		
Musculoskeletal and connective tissue disorders			
Restlessness			
subjects affected / exposed	2 / 19 (10.53%)		
occurrences (all)	2		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported